

IN THE CLAIMS

1. (currently amended) A method to screen for a breast, ~~ovarian~~, bladder, colon, or lung cancer in a human, comprising:

a) determining sphingosine kinase 1 (SPHK1) human gene copy number in a test sample from a region of the human that is suspected to be precancerous or cancerous, wherein the test sample is selected from the group consisting of breast, ~~ovarian~~, bladder, colon, and lung tissue, thereby generating data for a test human gene copy number; and

b) comparing the test human gene copy number to data for a control gene copy number, ~~obtained from~~ said control gene copy number representing the SPHK1 human gene copy number of corresponding normal, cancer-free human tissue of a same tissue type as the test sample, wherein a detectable amplification of the gene in the test sample relative to the control suggests the presence of a precancerous lesion or a cancer in the human.

2. (original) The method according to claim 1, wherein the control gene copy number is two copies per cell.

3-134. (canceled)

135. (Previously Presented) The method of claim 1 wherein the detectable amplification is at least three-fold.

136. (Previously Presented) The method of claim 1 wherein the detectable amplification is at least four-fold.

137. (Previously Presented) The method of claim 1 wherein the detectable amplification is at least five-fold.

138. (Previously Presented) The method of claim 1 wherein the detectable amplification is at least 10-fold.

139. (NEW) A method to screen for a breast, bladder, colon, or lung cancer in a human, comprising:

a) determining in a test sample from a region of the human that is suspected to be precancerous or cancerous, sphingosine kinase 1 (SPHK1) gene copy number wherein said SPHK1 gene encodes an mRNA comprising SEQ ID: 3 and wherein the test sample is selected from the group consisting of breast, bladder, colon, and lung tissue, thereby generating data for a test gene copy number; and

b) comparing the test gene copy number to data for a control gene copy number, obtained from a control sample of a same tissue type as the test sample, wherein a detectable amplification of the gene in the test sample relative to the control suggests the presence of a precancerous lesion or a cancer in the human.

140. (NEW) The method according to claim 139, wherein the control gene copy number is two copies per cell.

141. (NEW) The method of claim 139 wherein the detectable amplification is at least three-fold.

142. (NEW) The method of claim 139 wherein the detectable amplification is at least four-fold.

143. (NEW) The method of claim 139 wherein the detectable amplification is at least five-fold.

144. (NEW) The method of claim 139 wherein the detectable amplification is at least 10-fold.